

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 08 June 2001 (08.06.01)	Applicant's or agent's file reference 02649.008
International application No. PCT/US00/27624	Priority date (day/month/year) 04 October 1999 (04.10.99)
International filing date (day/month/year) 04 October 2000 (04.10.00)	
Applicant KAISER, Bruce, John et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
03 May 2001 (03.05.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Odile ALIU Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING OF A CHANGE

(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

HORTON, Kenneth, E.
Rader, Fishman & Grauer PLLC
Suite 150
River Park Corporate Center One
10653 S. River Front Parkway
South Jordan, UT 84095
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 22 November 2001 (22.11.01)	
Applicant's or agent's file reference 02649.008	IMPORTANT NOTIFICATION
International application No. PCT/US00/27624	International filing date (day/month/year) 04 October 2000 (04.10.00)

1. The following indications appeared on record concerning: <input type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input checked="" type="checkbox"/> the agent <input type="checkbox"/> the common representative									
Name and Address HORTON, Kenneth, E. Parsons Behle & Latimer Suite 1800 201 South Main Street Salt Lake City, UT 84111 United States of America	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">State of Nationality</td> <td style="padding: 2px;">State of Residence</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Telephone No. 801-536-6656</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Facsimile No. 801-536-6111</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Teleprinter No.</td> </tr> </table>	State of Nationality	State of Residence	Telephone No. 801-536-6656		Facsimile No. 801-536-6111		Teleprinter No.	
State of Nationality	State of Residence								
Telephone No. 801-536-6656									
Facsimile No. 801-536-6111									
Teleprinter No.									
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning: <input type="checkbox"/> the person <input type="checkbox"/> the name <input checked="" type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence									
Name and Address HORTON, Kenneth, E. Rader, Fishman & Grauer PLLC Suite 150 River Park Corporate Center One 10653 S. River Front Parkway South Jordan, UT 84095 United States of America	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">State of Nationality</td> <td style="padding: 2px;">State of Residence</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Telephone No. (801) 572-0185</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Facsimile No. (801) 572-7666</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Teleprinter No.</td> </tr> </table>	State of Nationality	State of Residence	Telephone No. (801) 572-0185		Facsimile No. (801) 572-7666		Teleprinter No.	
State of Nationality	State of Residence								
Telephone No. (801) 572-0185									
Facsimile No. (801) 572-7666									
Teleprinter No.									
3. Further observations, if necessary:									
4. A copy of this notification has been sent to: <table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> the receiving Office</td> <td><input type="checkbox"/> the designated Offices concerned</td> </tr> <tr> <td><input type="checkbox"/> the International Searching Authority</td> <td><input checked="" type="checkbox"/> the elected Offices concerned</td> </tr> <tr> <td><input checked="" type="checkbox"/> the International Preliminary Examining Authority</td> <td><input type="checkbox"/> other:</td> </tr> </table>		<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned	<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned	<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:		
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned								
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned								
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:								

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p style="text-align: center;">Authorized officer</p> <p style="text-align: center;">François BAECHELER</p> <p>Telephone No.: (41-22) 338.83.38</p>
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

RECD 07 FEB 2003

Applicant's or agent's file reference 02649.008	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/27624 22624	International filing date (day/month/year) 01 OCTOBER 2000	Priority date (day/month/year) 04 OCTOBER 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant EDAX INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the report 03 MAY 2001	Date of completion of this report 25 MARCH 2002
Name and mailing address of the IP/EAUS Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer JILL WARDEN Telephone No. (703) 308-0661
Facsimile No. 703-308-3230	

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/27624

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed

☒ the description:

pages 1-20, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the claims:

pages 21-24, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the drawings:

pages 1-7, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the sequence listing part of the description:

pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

☒ the description, pages NONE
☒ the claims, Nos. NONE
☒ the drawings, sheets 4-4g NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/27624

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
☐ paid additional fees.
☐ paid additional fees under protest.
☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
☒ not complied with for the following reasons:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-1, 19 and 20, drawn to a method for detecting a taggant.

Group II, claims 5-8, 11-18, 21-33, drawn to a method for coating a material.

Group III, claims 9 and 10, drawn to a taggant solution.

The inventions listed as Groups I, II and III do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Each group contains at least one taggant which radiates at least one X-ray as the special technical feature. The claims lack unity because the special technical feature is not Applicants' contribution over the prior art. The special technical feature is known in the art as seen by the cited references.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
☐ the parts relating to claims Nos. 2.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/27624

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims	<u>NONE</u>	YES
	Claims	<u>1-33</u>	NO
Inventive Step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-33</u>	NO
Industrial Applicability (IA)	Claims	<u>1-33</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1-33 lack novelty under PCT Article 33(2) as being anticipated by White (1,476,882).

White teaches a scheme for encoding articles. The scheme involves marking the article with first and second materials which have the property of emitting X-rays when subjected to a source of electromagnetic radiation at an appropriate wavelength. The encoding elements include one or more rare earth elements and/or elements having atomic numbers between 16 and 92. The articles which can be encoded include paintings, tapestries, currency, etc.

Therefore, claims 1-33 lack novelty over White.

Claims 1-33 have industrial applicability as tagging agents and a method for tagging articles.

NEW CITATIONS
NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/27624

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): G01N 33/20, 21/76; G06K 19/06; G01B 15/06; A61N 5/00; G21G 5/00 and US Cl.: 436/73, 172; 235/491; 378/58; 250/492.2

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 April 2001 (12.04.2001)

PCT

(10) International Publication Number
WO 01/25821 A3

(51) International Patent Classification⁷: G01N 33/20,
21/76, G06K 19/06, G01B 15/06, A61N 5/00, G21G 5/00

(21) International Application Number: PCT/US00/27624

(22) International Filing Date: 4 October 2000 (04.10.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/157,573 4 October 1999 (04.10.1999) US

(71) Applicant (for all designated States except US): EDAX
INC. [US/US]; 91 McKee, Mahwah, NJ 07430 (US).

(72) Inventors; and

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[US/US]; 9000 West Metaline Avenue, Kennewick, WA
99336 (US). WATSON, David, J. [US/US]; 1109 Sanford
Avenue, Richland, WA 99352 (US). KUHLMAN, Robert,
D. [US/US]; 1018 Winslow Avenue, Richland, WA 99352
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(74) Agent: HORTON, Kenneth, E.; Parsons Behle & La-
timer, Suite 1800, 201 South Main Street, Salt Lake City,
UT 84111 (US).

(81) Designated States (*national*): AL, AM, AT, AU, AZ, BA,
BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES,
FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

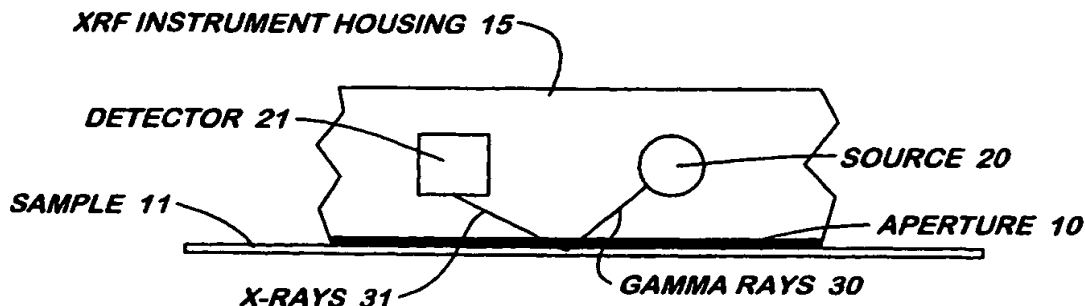
Published:

- With international search report.
- Before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments.

(88) Date of publication of the international search report:
7 June 2001

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHODS FOR IDENTIFICATION AND VERIFICATION



(57) Abstract: An apparatus and method in which one or more taggants are detected by X-ray fluorescence analysis to identify or verify the article or its point of manufacture. The taggants are manufactured as part of the article or placed into a coating, label, or otherwise embedded within the article for later verification of the presence or absence of the taggant. The detection apparatus (25) has an instrument housing (15) which contains various components. Gamma rays (30) from a source (20) are optionally focused by aperture (10) to impinge on a sample (11), which contains at least one taggant.

WO 01/25821 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/27624

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 33/20, 21/76; G06K 19/06; G01B 15/06; A61N 5/00; G21G 5/00

US CL : 436/73, 172; 235/491; 378/58; 250/492.2

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 436/73, 172; 235/491; 378/58; 250/492.2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST 2.0

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,476,382 A (WHITE) 09 October 1984, col. 1, line 53 - col. 4, line 31; col. 6, lines 45-48; col. 8, line 66 - col. 10, line 14.	1-33
X	US 4,251,726 A (ALVAREZ) 17 February 1981, col. 2, lines 20-43 and abstract.	1, 3, 5, 7, 11, 13, 15, 17, 19, 21
X	US 5,185,773 A (BLOSSFELD et al) 19 February 1993, col. 1 line 40 - col. 2, line 55.	1-4, 15, 16, 19, 20, 31
X	US 5,527,707 A (FUKAZAWA) 18 June 1996, col. 4, lines 25-58.	1, 3
A	US 4,767,205 A (SCHWARTZ et al) 30 August 1988, see entire document.	



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

29 JANUARY 2001

Date of mailing of the international search report

APR 05 2001

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

LATOYA CROSS

Telephone No. (703) 308-0661

DEBORAH THOMAS
PARALEGAL SPECIALIST

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/27624

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	4,363,965 A (SOBERMAN et al) 14 December 1982, see entire document.	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/27624

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/27624

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-4, 19, 20, drawn to a method of detecting at least one taggant and analyzing an article.

Group II, claim(s) 5-8, 11-18, 21-33, drawn to a method for coating an article.

Group III, claim(s) 9, 10, drawn to a taggant solution.

The inventions listed as Groups I-III do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Each group contains at least one taggant which radiates at least one X-ray as the special technical feature. The claims lack unity because the special technical feature is not Applicant's contribution over the prior art. The special technical feature (at least one taggant which radiates at least one X-ray) is known in the art. See references cited in Search Report.